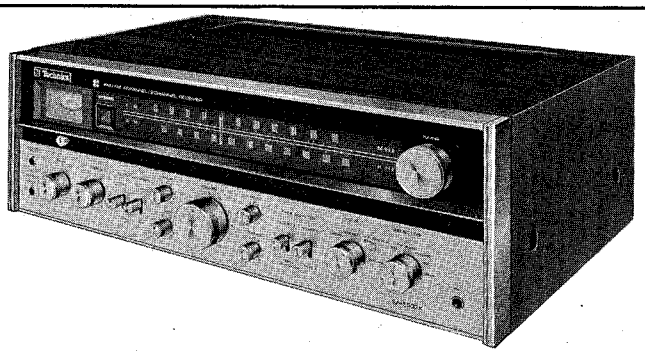
Service Manual

Technics
HI-FI COMPONENTS
Technics

FM/AM
4 CHANNEL/2 CHANNEL RECEIVER



MODEL SA-5600X

TECHNICAL SPECIFICATIONS (IHF) Specifications are subject to change without notice for further improvement.

AUDIO SECTION

Music power:		
4 CH operation		108W (4Ω)
2 CH Balanced Transformerless operation		108W (8Ω)
1 kHz RMS (continuous) power:		
4 CH operation (Each ch. driven)		22.5W/22.5W/22.5W/22.5W (4Ω)
		15W/15W/15W/15W (8Ω)
(All ch. driven)		14W+14W+14W+14W (4Ω)
		11W+11W+11W+11W (8Ω)
2 CH Balanced Transformerless (Each ch. driven)		41W/41W (8Ω)
(Both ch. driven)		31W+31W (8Ω)
20 Hz~20 kHz RMS (continuous) power:		
4 CH operation all ch. driven		8.5W+8.5W+8.5W+8.5W (8Ω)
2 CH Balanced Transformerless operation Both ch. driven		25W+25W (8Ω)
Power bandwidth (all ch. driven 8Ω):		7 Hz~30 kHz, −3dB
Frequency response:	PHONO	RIAA standard curve ±1dB
	AUX	10 Hz~50 kHz, +0dB −3dB
Residual hum & noise:		1.5mV
Input sensitivity & impedance:	PHONO	2mV/50kΩ
	AUX, PLAYBACK	180mV/40kΩ
	MIC	3mV/50kΩ
S/N (IHF, A):	PHONO	70dB
	AUX	90dB
Tone control:	BASS	50 Hz, +10dB −10dB
	TREBLE	10 kHz, +10dB −10dB
Loudness control:		50 Hz, +10dB
REC OUT:		180mV
Damping factor:		30 (8Ω)
Load impedance: 4 CH (4~16Ω)	Balanced Transformerless	(8~16Ω)
Total harmonic distortion:		0.5%
Intermodulation distortion:		0.7%

FM TUNER SECTION

Frequency range:				88~108 MHz
FM sensitivity (IHF):				1.9μV
Alternate channel selectivity:				65dB
Harmonic distortion:	MONO	0.3%	STEREO	0.4%
S/N:				65dB
Frequency response:				20 Hz~13 kHz, ±1dB
Image rejection (at 98 MHz):				55dB
IF rejection (at 98 MHz):				60dB
Spurious response rejection (at 98 MHz):				60dB
Capture ratio:				1.8dB
AM suppression:				50dB
Stereo separation (at 1 kHz):				40dB
Leak carrier (19 kHz, 38 kHz):				50dB

AM TUNER SECTION

Frequency range:	520~1610 kHz
Sensitivity:	20μV
Selectivity:	25dB
Image rejection (at 1000 kHz):	40dB
IF rejection (at 1000 kHz):	40dB

GENERAL

Power consumption:	270W
Power supply:	50/60 Hz 110/120/220/240V
Dimensions (W x H x D):	430×146×385mm (16 9/16″×5 3/4″×15 5/32″)
Weight:	10.9kg (24 lb.)

TECHNISCHE DATEN (DIN 45 500) Änderungen vorbehalten

VERSTÄRKERTEIL

Musikleistung:	4-Kanal Betrieb	4×27W (4Ω)
	Transformatorlos Ausgeglichen Betrieb	2×54W (8Ω)
Nennleistung 1 kHz:		
4-Kanal Betrieb Alle Kanäle in Betrieb	4×14W (4Ω)	4×11W (8Ω)
Transformatorlos Ausgeglichen Betrieb Beide Kanäle in Betrieb		2×31W (8Ω)
Nennleistung 20 Hz~20 kHz:		
4-Kanal Betrieb Alle Kanäle in Betrieb		4×8.5W(8Ω)
Transformatorlos Ausgeglichen Betrieb Beide Kanäle in Betrieb		2×25W (8Ω)
Klirrfaktor:		
Nennleistung, bei 1000 Hz 4Ω		0.5%
Nennleistung, bei 40~14000 Hz 4Ω		3.0%
Leistungsbandbreite (Alle Kanäle in Betrieb 4Ω):		10 Hz~25 kHz −3dB
Frequenzgang:		10 Hz~50 kHz, −3dB
Eingangs-Empfindlichkeit und-Impedanz:	PHONO	2mV/50kΩ
	AUX	180mV/40kΩ
	MIC	3mV/50kΩ
Tonband-Cinchbuches:	PLAYBACK	180mV/40kΩ
	REC OUT	180mV
Fremdspannungsabstand:		
bei Nennleistung	PHONO	55dB
	AUX	80dB
bei 50mW Ausgangsleistung	PHONO	50dB
	AUX	55dB
Klangregler: Tiefen-Bereich		+10dB, −10dB bei 50 Hz
Höhen-Bereich		+10dB, −10dB bei 10 kHz
Loudness-Regler:		50 Hz +10dB
Dampfungsfaktor:		30 bei 8Ω
Ausgänge Lautsprecher: 4-Kanal Betrieb		4~16Ω
Transformatorlos Ausgeglichen Betrieb		8~16Ω

FM TUNERTEIL

Empfangsbereich:				88~108 MHz
Antennenanschluß:	300Ω (symmetrisch)		75Ω (unsymmetrisch)	
Empfindlichkeit (bei ±40 kHz Hub):	1.8μV, 30dB Fremdspannungsabstand		300Ω	
	1.5μV, 20dB Fremdspannungsabstand		300Ω	
	1.0μV, 20dB Fremdspannungsabstand		75 Ω	
Klirrfaktor (bei =40 kHz Hub):	MONO	0.3%	STEREO	0.7%
Fremdspannungsabstand:	MONO	52dB	STEREO	50dB
Selektivität bei 400 kHz:				65dB
Spiegelselektion (bei 98 MHz):				55dB
ZF-Festigkeit (bei 98 MHz):				60dB
Verzerrungsfestigkeit (bei 98 MHz):				60dB
Gleich wellen-Selektion:				1.8dB
AM-Unterdrückung:				50dB
Stereo-Übersprechdämpfung:				40dB bei 1kHz
Pilotton-Unterdrückung:				48dB bei 19kHz, 58dB bei 38kHz
Begrenzung, Einsatzpunkt:				1.2μV
Bandbreite: ZF-Verstärker				350kHz
UKW-Demodulator				700kHz

AM TUNERTEIL

Empfangsbereich:	520~1610 kHz
Empfindlichkeit:	20μV
Selektivität:	25dB
Spiegelselektion:	40dB
ZF-Festigkeit:	40dB

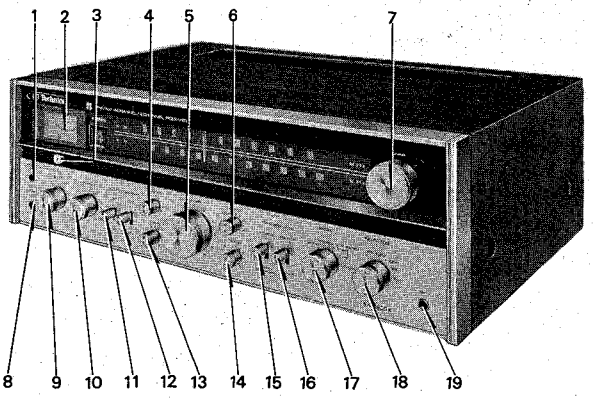
ALLGEMEINS

Leistungsaufnahme:	270W
Netzspannung umschaltbar:	50/60 Hz, 110/120/220/240V
Abmessungen (B×H×T):	430×146×385mm
Gewicht:	10.9kg

ORDER NO. AD-044

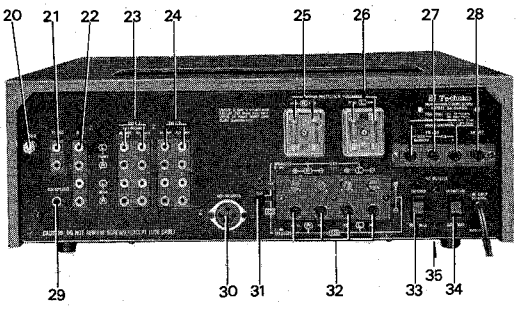
MATSUSHITA ELECTRIC
MATSUSHITA ELECTRIC TRADING CO., LTD.
P. O. Box 288, Central Osaka, Japan

■ LOCATION OF CONTROLS



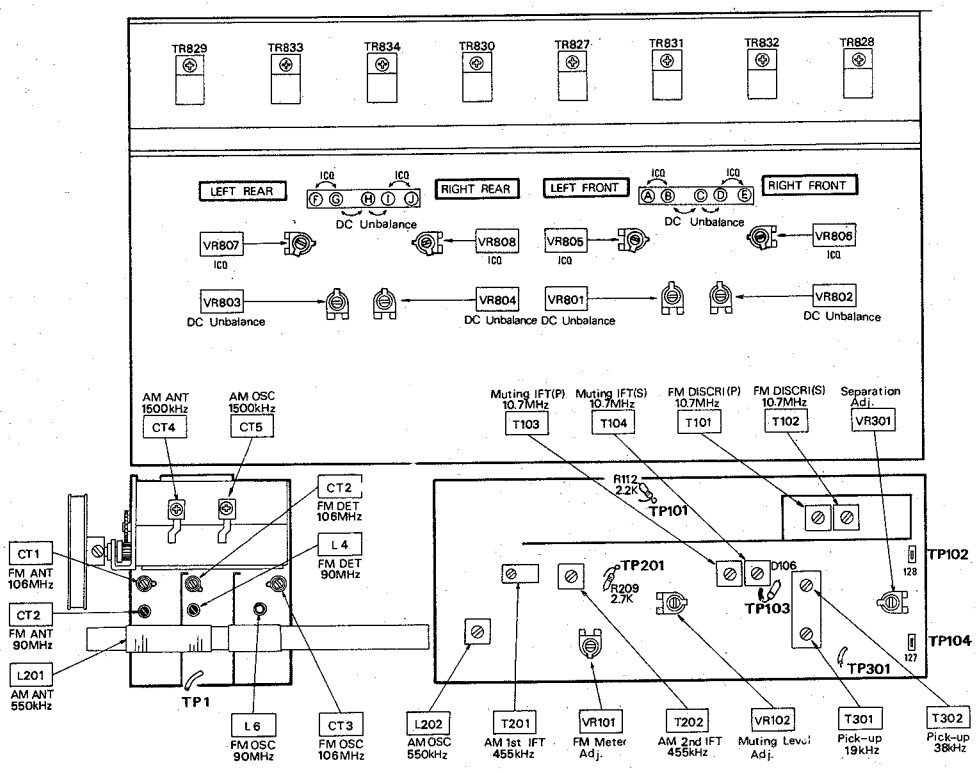
1. HEADPHONES JACK ..... Front Channel
2. SIGNAL STRENGTH METER
3. POWER SOURCE SWITCH (S901)
4. LEFT FRONT LEVEL CONTROL (VR601)
5. MAIN VOLUME CONTROL (VR701)
6. RIGHT FRONT LEVEL CONTROL (VR602)
7. TUNING CONTROL
8. HEADPHONES JACK ..... Rear Channel
9. BASS CONTROL (VR703)
10. TREBLE CONTROL (VR702)
11. MUTING SWITCH (S101)
12. LOUDNESS SWITCH (S701)
13. LEFT REAR LEVEL CONTROL (VR603)
14. RIGHT REAR LEVEL CONTROL (VR604)
15. 4CH TAPE MONITOR SWITCH ..... TAPE 1 (S403)
16. 4CH TAPE MONITOR SWITCH ..... TAPE 2 (S404)
17. MODE SWITCH (S402)
18. SELECTOR SWITCH (S401)
19. MICROPHONE JACK

20. GROUND TERMINAL
21. PHONO INPUT TERMINALS ..... 2 Channel
22. AUX INPUT TERMINALS ..... 4 Channel
23. 4CH TAPE MONITOR TERMINALS ..... TAPE 1
24. 4CH TAPE MONITOR TERMINALS ..... TAPE 2
25. RIGHT CH. CIRCUIT PROTECTION FUSES
26. LEFT CH. CIRCUIT PROTECTION FUSES
27. EXT. FM ANTENNA TERMINALS
28. EXT. AM ANTENNA TERMINAL
29. 4CH. MPX OUTPUT TERMINAL
30. 4CH. REMOTE BALANCER CONNECTION SOCKET
31. BALANCED TRANSFORMER LESS SWITCH (S801)
32. SPEAKER TERMINALS
33. AC POWER OUTLET ..... Switched
34. AC POWER OUTLET ..... Unswitched
35. VOLTAGE SELECTOR SWITCH (S902)



■ ALIGNMENT INSTRUCTIONS

Alignment Points



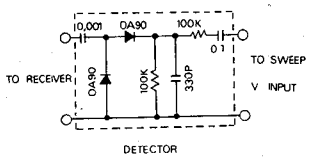


Fig. 1

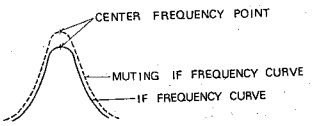


Fig.2

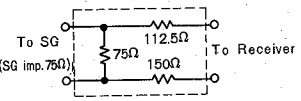


Fig. 3 (Abb. 3)

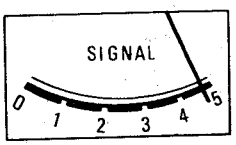


Fig.4

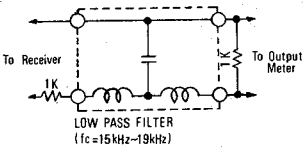


Fig. 5

ALIGNMENT INSTRUCTIONS.....READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Notes :
1. Volume control ..... Minimum
2. Balanced transformer less switch..... 4CH
3. Other controls ..... Optional position
4. Maintain line voltage at rated voltage.
5. The adjustment should be started two minutes after setting the power switch to the ON position.
6. Before adjusting, I_{CQ} adjusting volumes (VR805, VR806, VR807 and VR808) as shown in Alignment Point Location.

	CIRCUIT	VTVM CONNECTION	ADJUSTMENT POINTS	REMARKS
	MAIN AMP ALIGNMENT			
1	DC Unbalance	Connect DC VTVM to Ⓒ and Ⓓ (R-Front) or Ⓒ and Ⓑ (L-Front) terminal.	VR802 (R-Front) VR801 (L-Front)	Make sure that DC VTVM becomes 0mV.
		Connect DC VTVM to Ⓗ and Ⓘ (R-Rear) or Ⓗ and Ⓖ (L-Rear) terminal.	VR804 (R-Rear) VR803 (L-Rear)	
2	I_{CQ}	Connect DC VTVM to Ⓓ and Ⓔ (R-Front) or Ⓐ and Ⓑ (L-Front) terminal.	VR806 (R-Front) VR805 (L-Front)	Make adjustments so that the indication on DC VTVM becomes 4mV.
		Connect DC VTVM to Ⓘ and Ⓙ (R-Rear) or Ⓕ and Ⓖ (L-Rear) terminal.	VR808 (R-Rear) VR807 (L-Rear)	

Notes :
1. Volume control ..... Maximum (AM-RF)
   Minimum (AM-IF, FM-IF)
   Variable (FM-RF)
2. Bass and treble control ..... Center
3. Band selector switch ..... AM
   FM-Auto (FM-RF, FM-IF)
4. Loudness switch ..... OFF
5. Muting switch ..... OFF
6. Balanced transformer less switch..... 4CH
7. Tape-monitor switch ..... Source
8. Mode switch ..... Stereo
9. Maintain line voltage at rated voltage.
10. Output of signal generator should be no higher than necessary to obtain an output reading.

	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTION	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RECEIVER DIAL SETTING (DISTANCE)	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS
	AM ALIGNMENT					
3	High side through 0.001μF to antenna terminal, Common to chassis.	455kHz (20kHz Sweep)	Point of non-interference	Connect vert. amp. of scope to **TP**201.	T201 (1st IFT) T202 (2nd IFT)	Adjust for maximum output.
4	Fashion loop of several turns of wire and radiate signal into loop of receiver.	550kHz (30% Mod. with 400Hz)	550kHz (5.5mm (7/16"))	Connect meter to speakers terminal of set.	L202 (OSC Coil) L201 (ANT Coil)	Adjust for maximum output. Adjust L201 by moving coil bobbin along ferrite core.
5	Fashion loop of several turns of wire and radiate signal into loop of receiver.	1500kHz (30% Mod. with 400Hz)	1500kHz (157.2mm (6 3/16"))	Connect meter to speakers terminal of set.	CT5 (OSC Trimmer) CT4 (ANT Trimmer)	Adjust for maximum output. Repeat steps (4) and (5).
	FM-IF ALIGNMENT					
6			Point of non-interference.	Connect DC VTVM between **TP**102 and **TP**104.	T102 (FM DISCRI IFT) (S)	Make sure that VTVM becomes 0V.
7	High side through 0.001μF to **TP**1. Common to chassis.	10.7MHz (400kHz Sweep)	Point of non-interference.	Connect vert. amp. of scope through detector to **TP**101. Refer to figure 1.		Confirm center frequency.
8	High side through 0.001μF to **TP**1. Common to chassis.	10.7MHz (400kHz Sweep)	Point of non-interference.	Connect vert. amp. of scope to **TP**103.	T103 (Muting IFT) (P) T104 (Muting IFT) (S)	Adjust for maximum sharp and proper linearity. Adjust to center frequency as step 7. Refer to figure 2.
	FM-RF ALIGNMENT					
9	Connect to FM antenna terminal through FM dumm antenna. (Refer to fig 3)	90MHz (100% Mod. with 400Hz)	90MHz (20.7mm (25/32"))	Output meter across speaker terminals.	L6 (FM OSC Coil) * L4 (FM DET Coil) L2 (FM ANT Coil)	Adjust for maximum output.
10	Connect to FM antenna terminal through FM dummy antenna. (Refer to fig. 3)	106MHz (100% Mod. with 400Hz)	106MHz (147.2mm (5 25/32"))	Output meter across speaker terminals.	CT3 (FM OSC Trimmer) CT2 (FM DET Trimmer) CT1 (FM ANT Trimmer)	Adjust for maximum output. Repeat steps (9) and (10).

* Use six cornered alignment tool for aligning FM OSC coil (L6).

	SIGNAL GENERATOR CONNECTION	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS
	MUTING LEVEL ALIGNMENT					
	Note : Muting switch.....ON					
11	Connect to FM antenna terminal through FM dummy antenna.	98MHz (100% Mod. with 400Hz) Output 28dB	98MHz	Output meter or speaker across speaker terminals.	VR102 (Muting Level)	Adjust so that output can be obtained.

	SIGNAL GENERATOR CONNECTION	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	INDICATOR (DISTORTION METER and SIGNAL METER)	ADJUSTMENT POINTS	REMARKS
	FM-MONO DISTORTION ALIGNMENT					
	Note : Muting switch ..... OFF					
12	Connect to FM antenna terminal through FM dummy antenna.	98MHz (100% Mod. with 400Hz) Output 72dB	98MHz	Connect distortion meter to speaker terminals.	T101 (FM DISCRI IFT) (P)	Adjust for minimum distortion.
	SIGNAL METER ALIGNMENT					
13	Connect to FM antenna terminal through FM dummy antenna.	98MHz (30% Mod. with 400Hz) Output 72dB	98MHz	Signal meter of set.	VR101 (Indicated Position)	Refer to fig. 4.

Notes :
Stereo-modulator ..... Connect stereo-modulator output to EXT. MOD. terminal of signal generator. Internal OSC 1kHz. Pilot signal modulation 10%.
Signal generator ..... Frequency approximately 98MHz. Output level 72dB. Modulation mode to FM.
1. Band selector ..... FM-Auto
2. Bass and treble control ..... Center
3. Balanced transformer less switch..... 4CH
4. Mode switch ..... Stereo
5. Maintain line voltage at rated voltage.
6. Muting switch ..... OFF
7. Loudness switch..... OFF
8. Tape monitor switch..... Source
9. Dummy load 8Ω

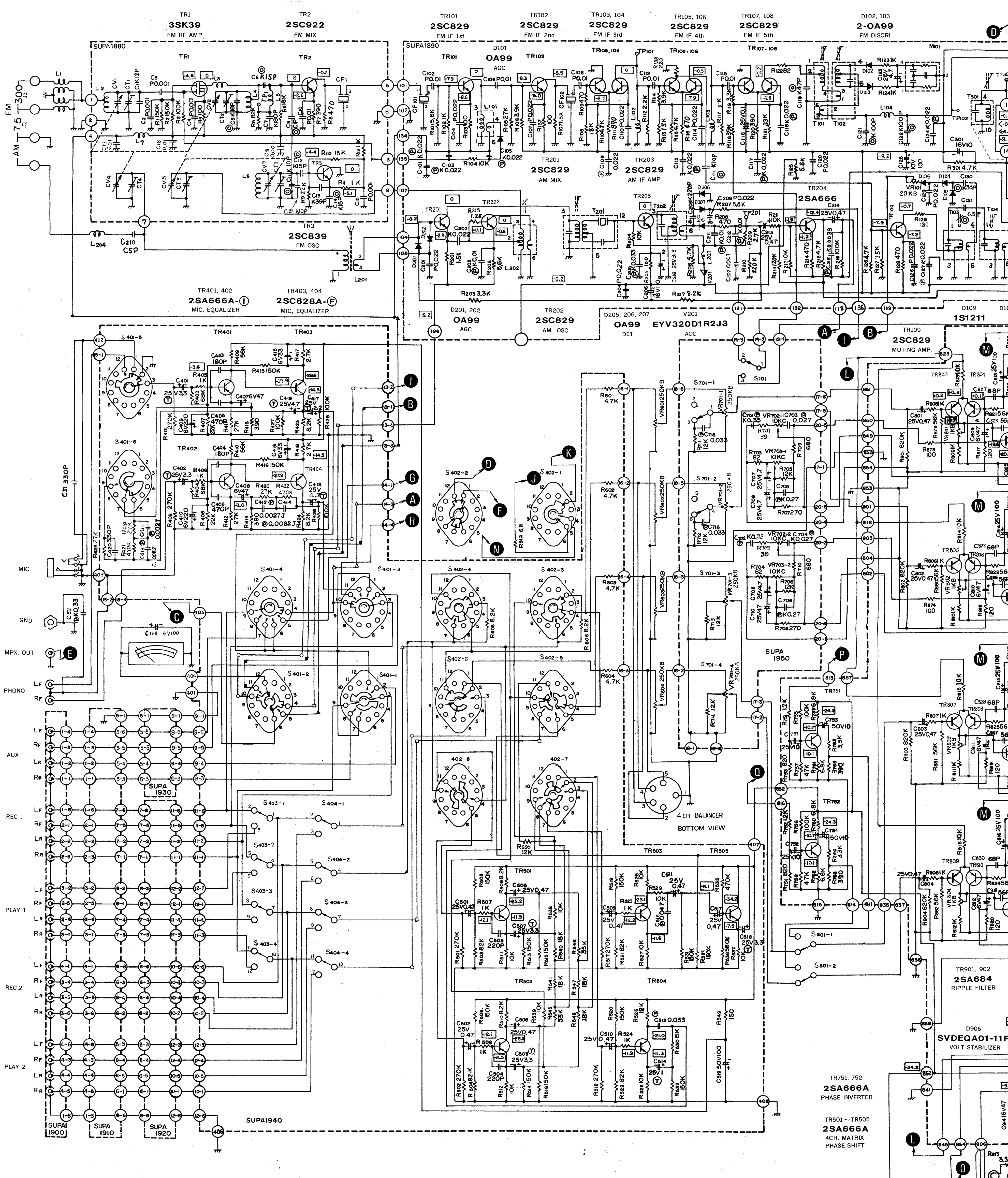
	SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE and MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS
	19kHz COIL and PHASE ALIGNMENT				
14	FM antenna terminal through dummy antenna.	Pilot signal to ON.	Connect scope to **TP**301, Common to chassis.	T301 (19kHz Coil)	Adjust for maximum output.
15	〃	〃 L (or R) 30% Mod.	Connect scope to speaker terminals.	T302 (38kHz Coil) (Phase Alignment)	Adjust for minimum right (or left) output.
	SEPARATION ALIGNMENT				
16	FM antenna terminal through dummy antenna.	L (and R) 30% Mod.	Output meter across speaker terminals through low pass filter. (Refer to fig. 5)	VR301 (Separation)	Adjust for minimum right (and left) output.

■ FM-RF ALIGNMENT INSTRUCTIONS ..... Only set for Germany

ABGLEICHANWEISUNGEN.....VOR DEM ABGLEICH SORGFÄLTIG DURCHLESEN					
MESSENDER SCHALTUNG	MESSENDER FREQUENZ	SKALENZEIGER-EINSTELLUNG DES EMPFÄNGERS (ABSTAND)	ANGEIGE (RÖHRENVOLTMETER ODER OSZILLOGRAPH)	ABGLEICH	BEMERKUNGEN
FM HF-ABGLEICH					
Anschluß an den FM Antennenanschluß über die künstliche, FM Antenne. (Vgl. Abb. 3)	87.5MHz (100% Mod. bei 400Hz)	87.5MHz (0mm)	Output meter über Lautsprecher-schwingspule anschließen.	L6 (Oszillatorspule)	Auf max. Ausgang abgleichen.
〃	90MHz (〃)	90MHz	〃	L4 (Zwischenkreis) L2 (Antennenspule)	〃
〃	106MHz (〃)	106MHz (147.2mm)	〃	CT3 (OSZ. Trimmer) CT2 (DET. Trimmer) CT1 (ANT. Trimmer)	〃

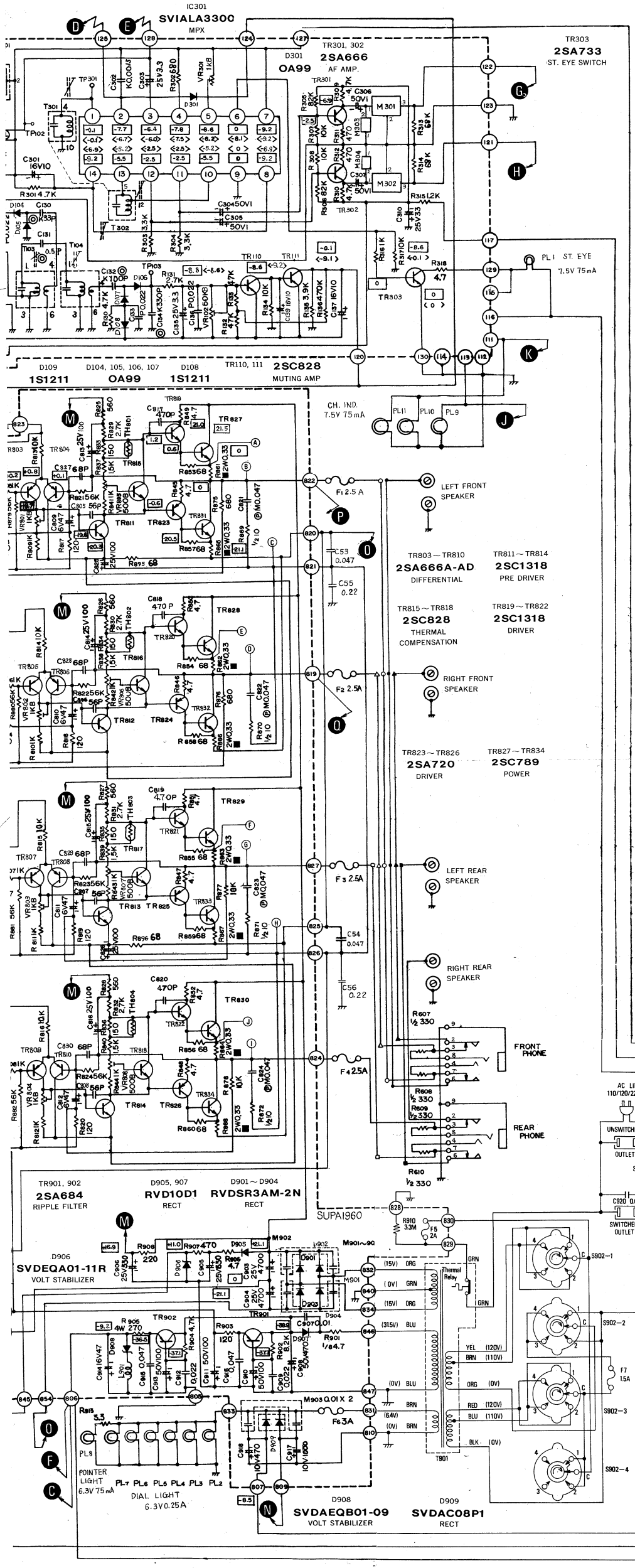
Schematic Diagram ....Model SA-5600X

(This schematic diagram may be modified at any time with the



TR1 3SK39 FM RF AMP
TR2 2SC922 FM MIX.
TR101 2SC829 FM IF 1st
TR102 2SC829 FM IF 2nd
TR103, 104 2SC829 FM IF 3rd
TR105, 106 2SC829 FM IF 4th
TR107, 108 2SC829 FM IF 5th
D102, 103 2-OA99 FM DISCRI
SUPA1880
SUPA1890
D101 OA99 AGC
TR201 2SC829 AM MIX.
TR203 2SC829 AM IF AMP.
TR204 2SA666
TR3 2SC839 FM OSC
FM 300Ω 75Ω
AM
TR401, 402 2SA666A-Ⓘ MIC, EQUALIZER
TR403, 404 2SC828A-Ⓕ MIC, EQUALIZER
D201, 202 OA99 AGC
TR202 2SC829 AM OSC
D205, 206, 207 OA99 DET
V201 EYV320D1R2J3 AOC
D109 1S1211
TR109 2SC829 MUTING AMP.
MIC
GND
MPX. OUT
PHONO
AUX
REC 1
PLAY 1
REC.2
PLAY 2
SUPA 1900
SUPA 1910
SUPA 1920
SUPA 1930
SUPA1940
SUPA 1950
4CH BALANCER
BOTTOM VIEW
TR751, 752 2SA666A PHASE INVERTER
TR501~TR505 2SA666A 4CH. MATRIX PHASE SHIFT
TR901, 902 2SA684 RIPPLE FILTER
D906 SVDEQA01-11F VOLT STABILIZER
POINTER LIGHT 6.3V 75

ime with the development of new technology.)

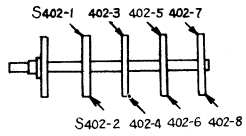


Notes:

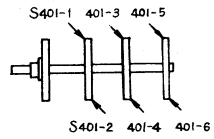
1. S101: FM muting switch in **"OFF"** position.
2. S401-1~S401-6: Selector switch in **"AM"** position.
   AM⟷FM AUTO⟷PHONO⟷MIC⟷AUX
3. S402-1~S402-8: Mode switch in **"MONO"** position.
   MONO⟷STEREO⟷MATRIX 1 (RM)⟷MATRIX 2 ⟷4CH DISCRETE
4. S403-1~S403-4: Tape monitor (TAPE 1) switch in **"SOURCE"** position.
5. S404-1~S404-4: Tape monitor (TAPE 2) switch in **"SOURCE"** position.
6. S707-1, S701-2: Loudness switch (Only Front Channel) in **"OFF"** position.
7. S801-1, S801-2: Balanced transformer less switch in **"4CH"** position.
8. S901: Power source switch in **"OFF"** position.
9. S902-1~S902-4: Voltage selector switch in "110V" position
   110V⟷120V⟷220V⟷240V
10. DC voltage measurements are taken with DC VTVM from chassis ground.
    ▭ ..... FM/AM No signal condition
    < > ..... FM stereo signal reception or FM muting to **"ON"** position.

VR101: FM Meter Adjustment
VR102: FM Muting Level Adjustment
VR301: Separation Adjustment
VR601~VR604: Channel Level Control
VR701-1~VR701-4 : Main Volume Control
VR702-1, VR702-2: Treble Control (Only Front Channel)
VR703-1, VR703-2: Bass Control (Only Front Channel)
VR801~VR804: DC Unbalance Adjustment
VR805~VR808: ICQ Adjustment

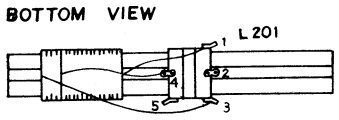
MODE

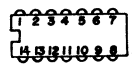


SELECTOR



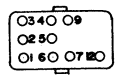
BOTTOM VIEW

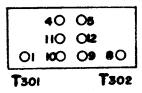




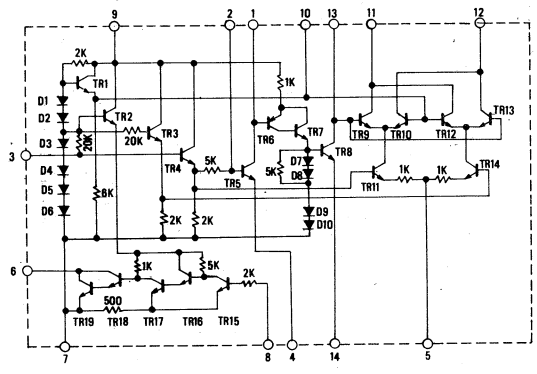
2SA666
2SA666A①
2SA666A
2SA684
2SA720
2SA733
2SC828
2SC828A Ⓕ
2SC829
2SC839
2SC922
2SC1318

2SC789

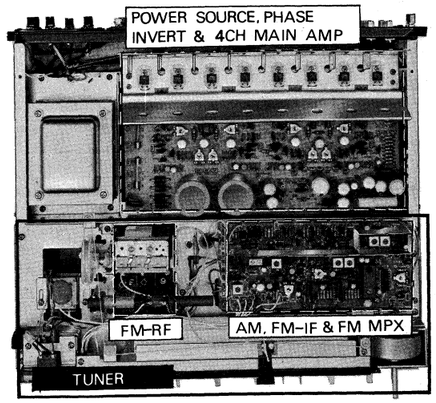




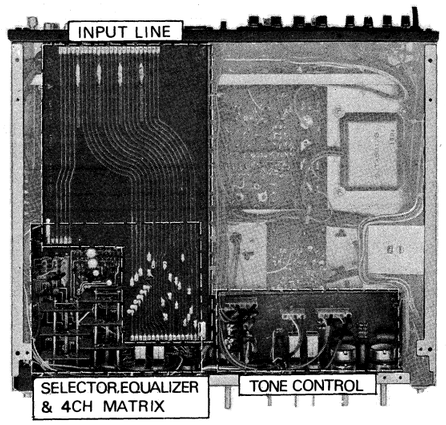
SVIALA3300


TR1 TR2 TR3 TR4 TR5 TR6 TR7 TR8 TR9 TR10 TR11 TR12 TR13 TR14 TR15 TR16 TR17 TR18 TR19
D1 D2 D3 D4 D5 D6 D7 D8 D9 D10
2K
20K
8K
5K
500
1K

■ LOCATION OF CIRCUIT BOARDS



Top View



Bottom View

■ TO REMOVE TUNER

1. Remove four (4) cabinet mounting screws.
2. Remove cabinet from chassis.
3. Remove eight (8) bottom board mounting red screws.
4. Remove bottom board from chassis.
5. Remove four-teen (14) control knobs from front panel.
6. Remove six (6) front panel mounting black screws.
7. Remove front panel from chassis. (Remove the control knobs and six (6) panel mounting screws (CA22). Refer to Cabinet and Chassis Parts Location on page 13.
8. Remove input line printed circuit board.
9. Remove eleven (11) tuner mounting black screws, nos. 1~11, as figure 1, 2 & 3.
10. Loosen power switch mounting black screws (nos. 12, 13), and slide power switch as figure 3.
11. Remove tuner from chassis.

■ TO REMOVE SELECTOR, EQUALIZER & 4 CH MATRIX PRINTED CIRCUIT BOARD

1. Remove front panel.
2. Remove input line printed circuit board.
3. Remove six (6) p.c.b. mounting screws, nos. 4, 5, 14, 15, 18, 19 and two (2) selector switch mounting nuts, nos. 16, 17 in figure 1 & 2.
4. Remove p.c.b. of selector, equalizer & 4 channel matrix.

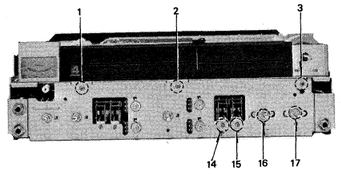


Fig. 1

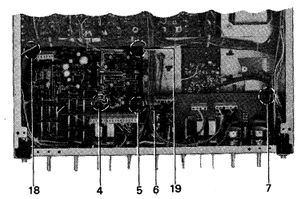


Fig. 2

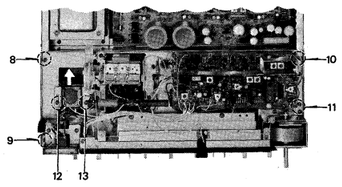
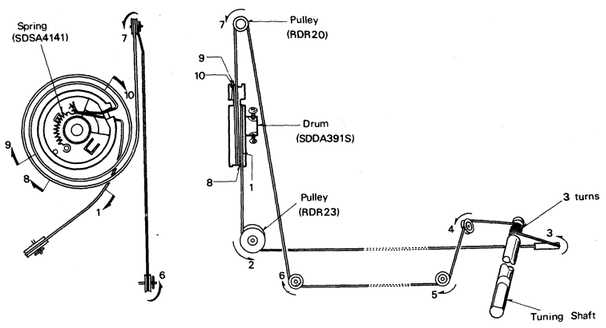


Fig. 3

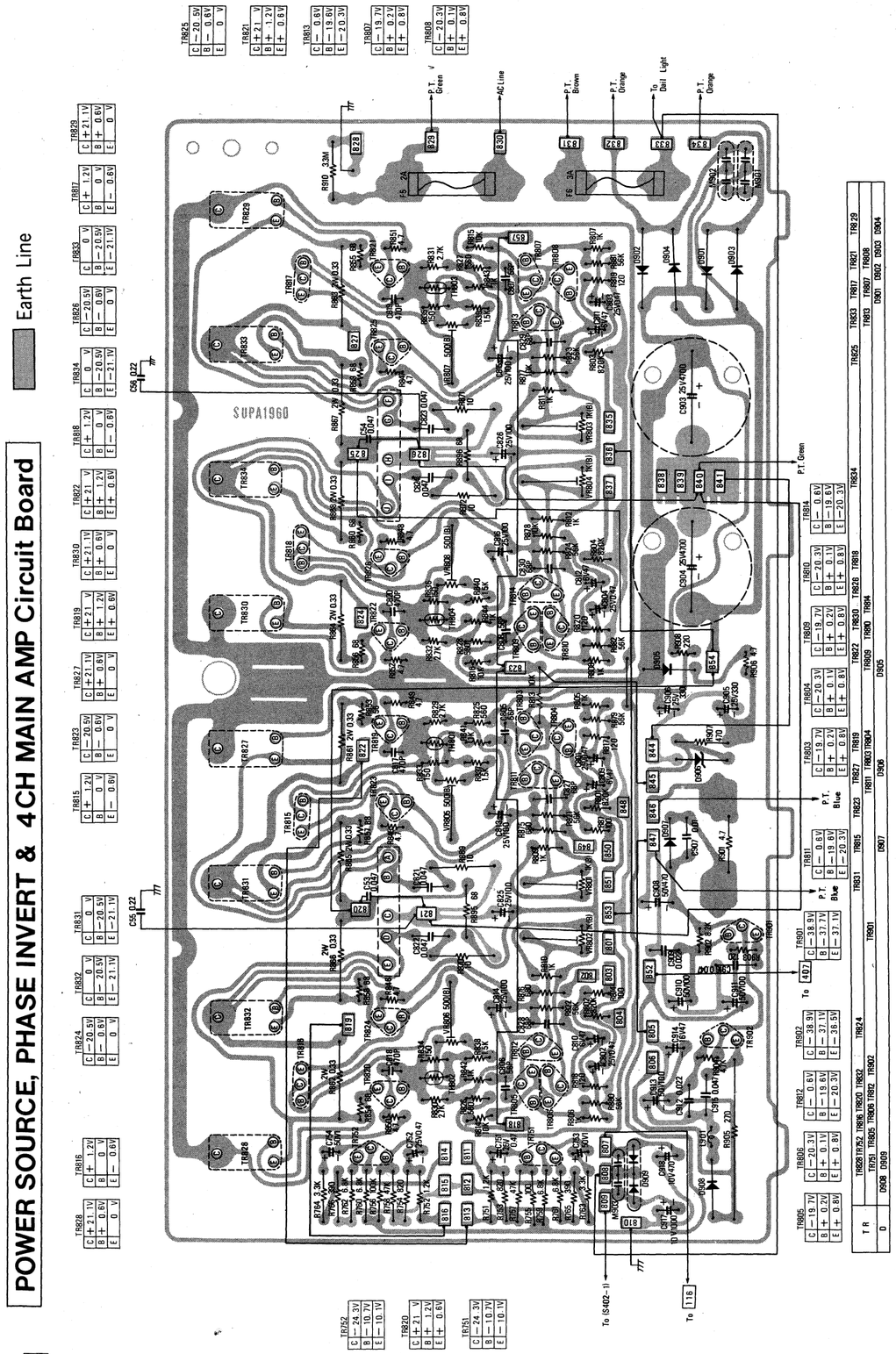
■ DIAL CORD INSTALLATION GUIDE

1. Dial cord length is 55'' (140cm)
2. Tuning gang is positioned at maximum capacity. (Frequency is minimum)
3. Arrow marks (1~10) indicate correct order and direction of stringing dial cord.

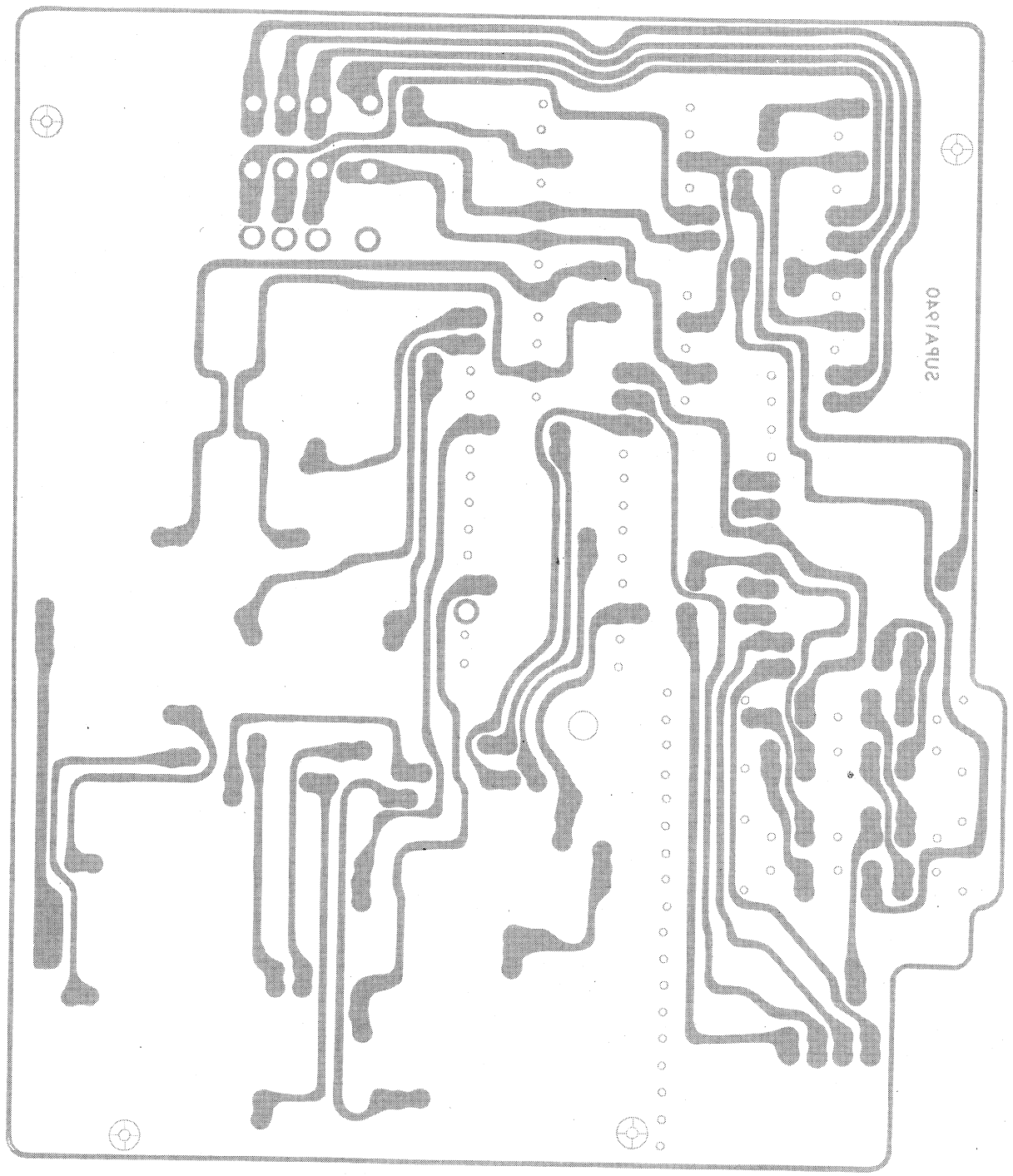


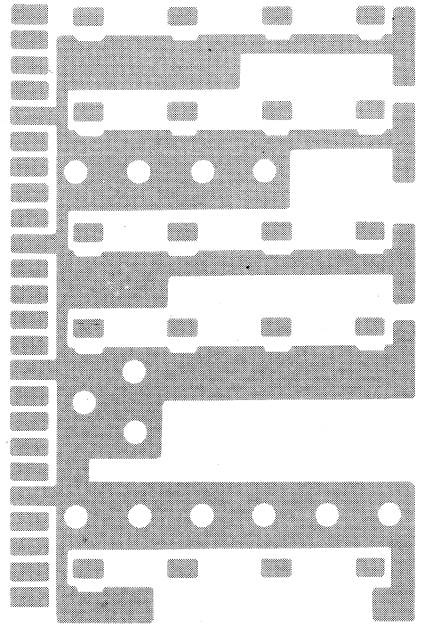
POWER SOURCE, PHASE INVERT & 4CH MAIN AMP Circuit Board

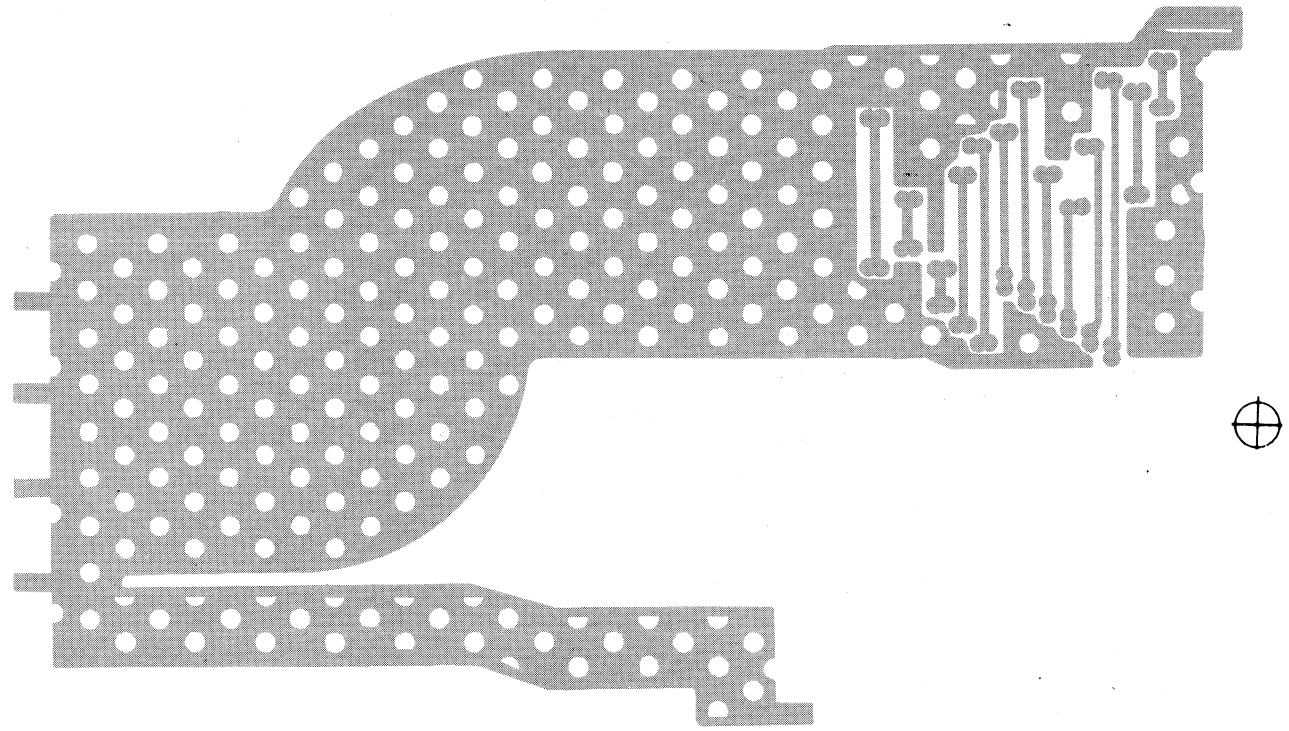
Earth Line



Printed Circuit View on Top of P.C.B.

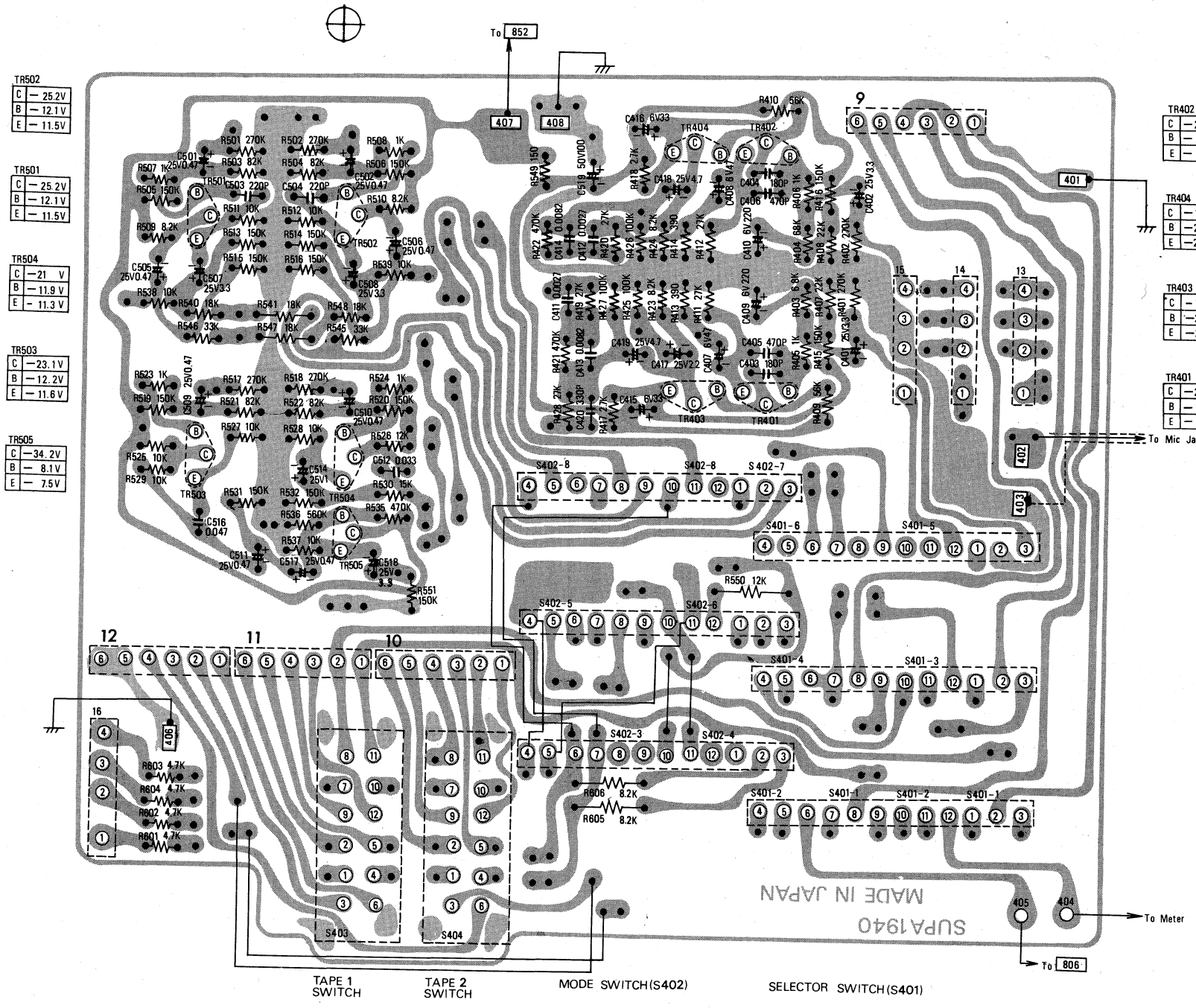






SELECTOR SWITCH, EQUALIZER & 4CH MATRIX Circuit Board

Bottom View　Earth Line

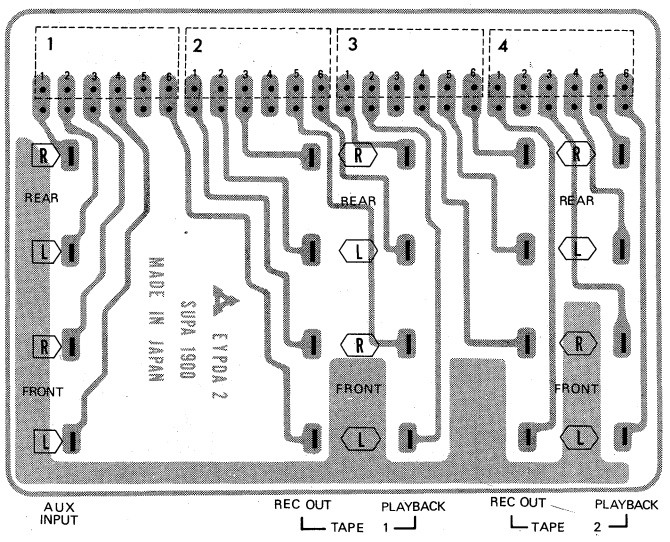


INPUT LINE Circuit Board

Bottom View

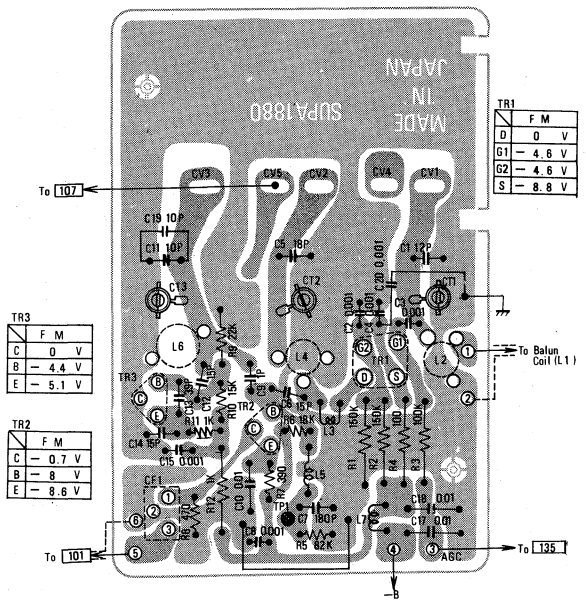
INPUT TERMINAL Circuit Board

Bottom View

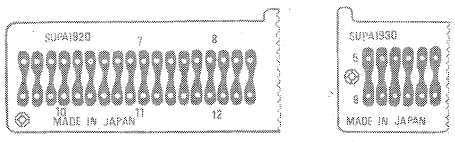


FM-RF Circuit Board

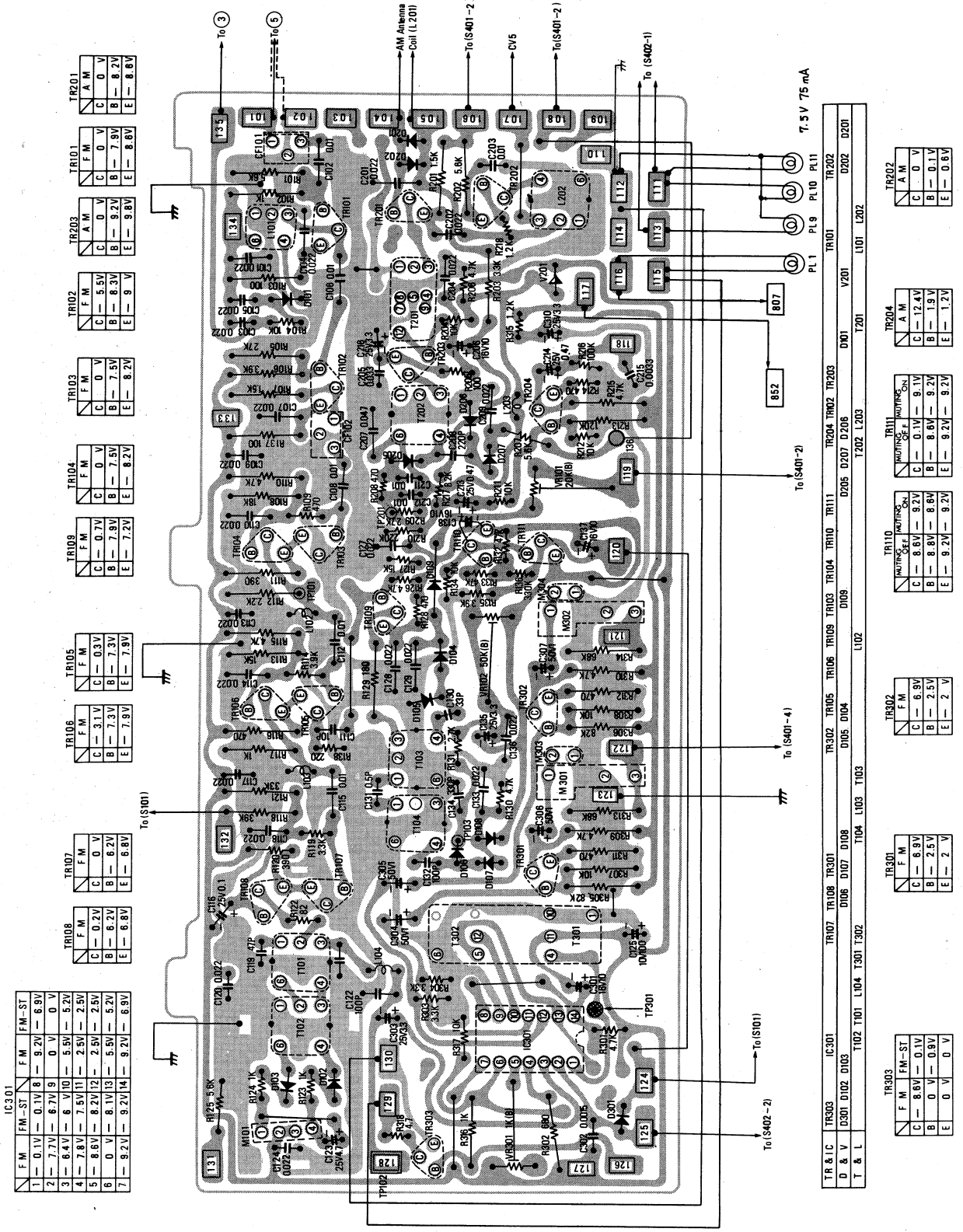
Bottom View



CIRCUIT CONNECTING Board



AM/FM-IF & FM MPX Circuit Board



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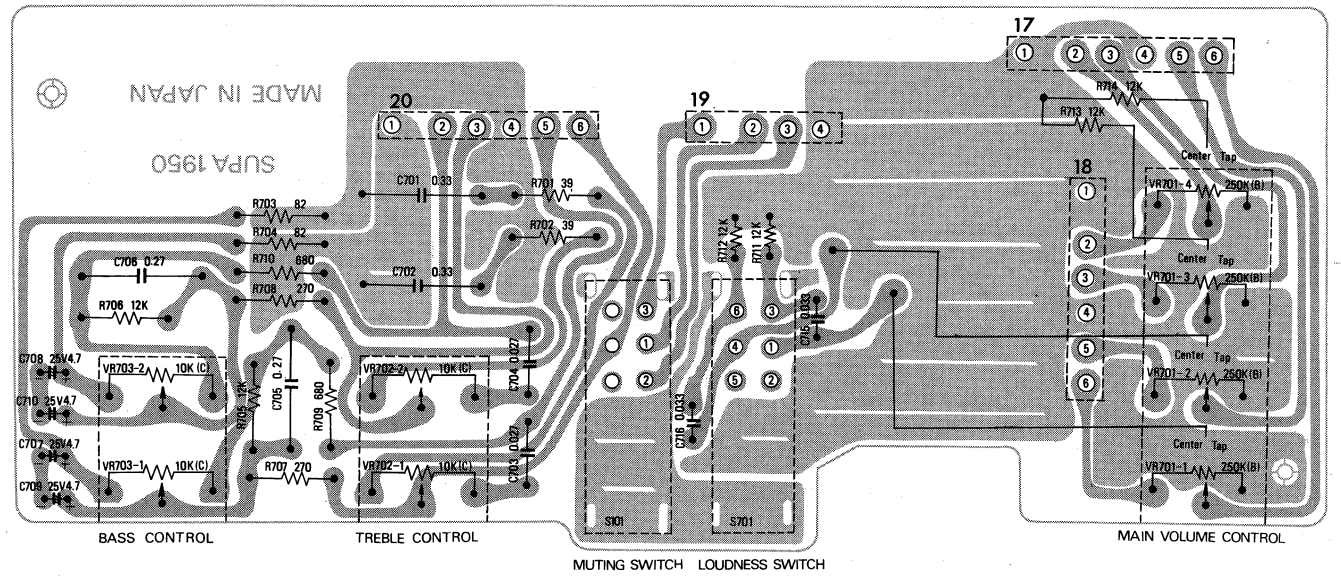
TONE CONTROL Circuit Board



■ SERVICE AID

How to install and remove the connection socket

1. Insert the lead wire into the lead wire pin clamp. (See fig. 1-①)
2. Bend the tabs of the lead wire pin clamp using radio pliers to attach the lead wire. (See fig. 1-② and ③)
3. Insert the lead wire pin clamp, to which the lead wire has been attached, into the connection socket. (See fig. 2)
4. In order to remove the lead wire pin clamp from the connection socket, insert a eyeleteer into the socket hole and touch it to the lead wire pin clamp stop. (See fig. 3-①)
5. Bend the stop inward toward the lead wire pin clamp and pull out the lead wire pin clamp. (See fig. 3-②)

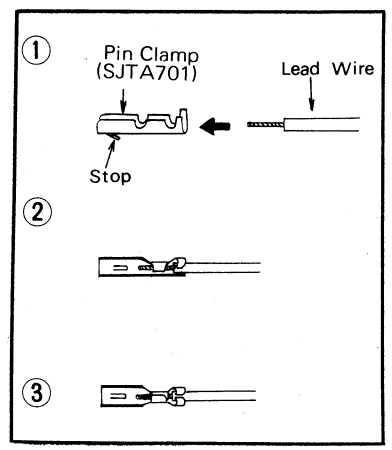


Fig. 1

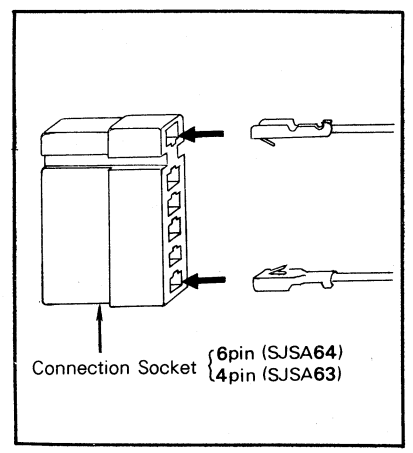


Fig. 2

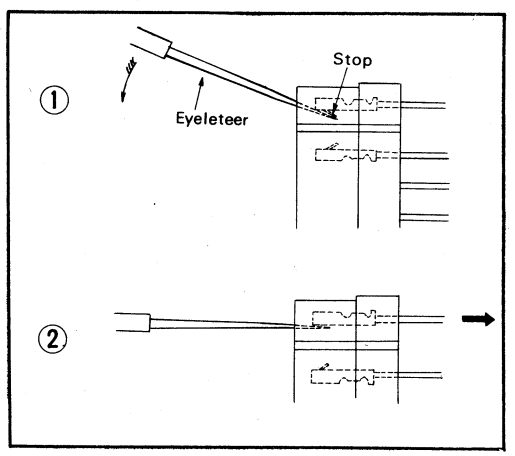
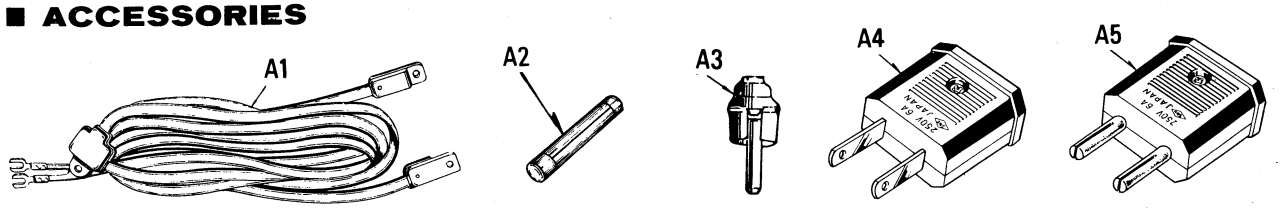


Fig. 3

■ ACCESSORIES



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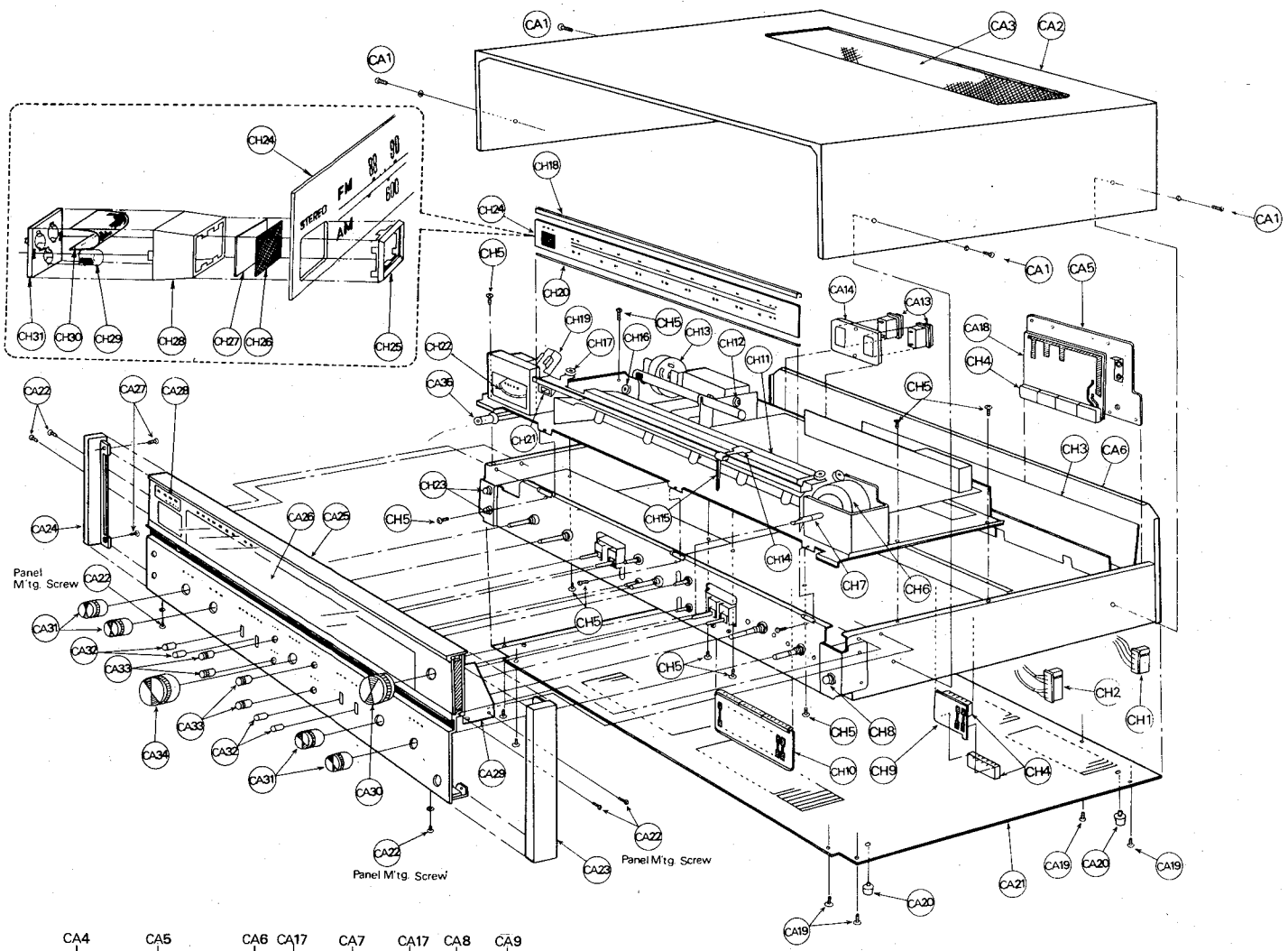
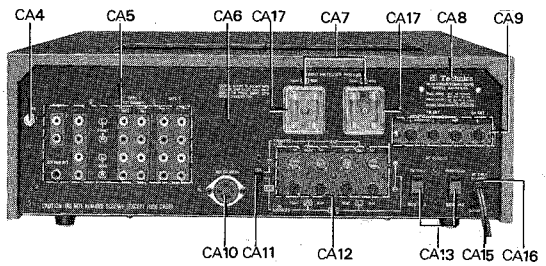
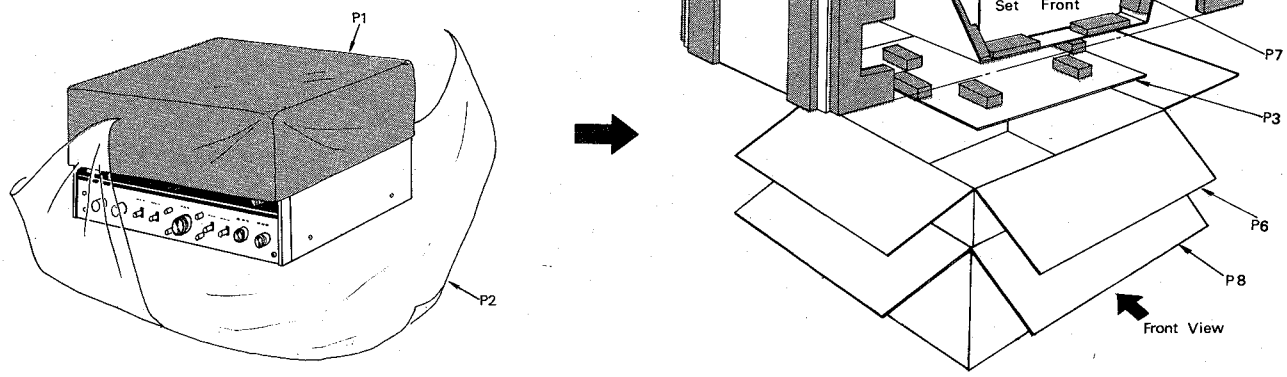
■ CABINET & CHASSIS PARTS LOCATION





■ PACKINGS



■ REPLACEMENT PARTS LIST

NOTES:

1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders.
2. Ⓝ indicates the New Parts.
3. **X-Z** rank: **X** rank parts will cover 80% of repair needs. **X+Y** rank parts will cover 95% of repair needs. **Z** rank parts are less necessary.

Bemerkungen:

1. Die meisten mechanischen Teile sind mit Teilnummern versehen. Bitte geben Sie diese Nummern an, sofern die Teile keine Bezugsnummern haben.
2. Ⓝ bedeutet: Neue Teile.
3. Gruppen **X-Z**: Teile der Gruppe **X** machen 80% des Erstzteibedarfes aus. Teile der Gruppen **X** und **Y** machen 95% des Ersatzteilbedarfes aus. Teile der Gruppe **Z** werden seltener benotigt.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
INTEGRATED CIRCUIT				
IC301	SVIALA3300	MPX Circuit	1	Ⓝ X
TRANSISTORS				
TR1	3SK39Q	FM RF Amplifier [EFT]	1	X
TR2	2SC922M	FM Mixer	1	X
TR3	2SC839H	FM Oscillator	1	X
TR101,102, 103,104 105,106, 107,108, 109,201, 202,203	2SC829C	FM IF Amplifier, Limiter & AM MIX, OSC, IF Amplifier	12	X
TR110,111, 815,816, 817,818	2SC828R	Muting Amp. & Thermal Compensation	6	X
TR204,301, 302	2SA666Q	AM & FM AF Amplifier	3	X
TR303	2SA733MAP	Stereo Eye Switching	1	X
TR401,402	2SA666A-①R	Equalizer Amplifier	2	X
TR403,404	2SC828A-ⒺR	Equalizer Amplifier	2	X
TR501,502, 503,504, 505,751, 752	2SA666A-Q	4ch. Matrix, Phase Shifter & Phase Inverter	7	X
TR803,804, 805,806, 807,808, 809,810	2SA666A-AD3	Differential Amp. [Main Amp.]	8	X
TR811,812, 813,814, 819,820, 821,822	2SC1318R	Driver Amplifier	8	X
TR823,824, 825,826	2SA720R	Driver Amplifier	4	X
TR827,828, 829,830, 831,832, 833,834	2SC789Y	Power Amplifier	8	Ⓝ X
TR901,902	2SA684R	Ripple Filter	2	X
DIODES and VARIATITE				
D101,104,105, 106,107,201, 202,205,206, 207,301	0A99	AGC, FM & AM Meter DET, Muting DET	11	X
D102,103	2-0A99	FM Discriminator	1 Pair	X
D108,109	1S1211	AOC	2	X
D901,902,903, 904	RVDSR3AM-2N	Rectifier	4	X
D905,907	RVD10D1	Noise Cancel & Rectifier	2	Ⓝ X
D906	SVDEQA01-11R	Zener, 11V, Noise Cancel	1	Ⓝ X
D908	SVDAEQB01-09	Zener, 9V, Voltage Stabilizer	1	Ⓝ X
D909	SVDAC08P-1	Rectifier	1	Ⓝ X
V201	EYV320D1R2J3	Variatite, AOC	1	X
COILS and TRANSFORMERS				
L1	SLAA4W1-1	Balun Coil	1	X
L2	SLAA4N9	FM Antenna Coil	1	Ⓝ X
L3	RLQY25S5	Choke Coil	1	X
L4	SLDA4N18	FM DET Coil	1	Ⓝ X
L5	RLQY15G5	Choke Coil	1	X
L6	SLOA4N9	FM OSC Coil	1	X
L7,102,103, 104,203,204, 901	SLQX151-1Y	Choke Coil	7	Y
L101	SLIA4B1	FM AGC Coil	1	Ⓝ X
L201	SLFA2E15	AM Antenna Coil	1	Ⓝ X
L202	SLOA2C6	AM OSC Coil	1	Ⓝ X
T101	SLIA4C54	FM DISCRI IF Transformer (P)	1	X
T102	SLIA4C56	FM DISCRI IF Transformer (S)	1	X
T103,104	SLIA4C24	FM Muting IF Transformer (P)(S)	2	X
T201	RLI7W105S-T	AM 1st IF Transformer	1	X
T202	RLI2C450	AM 2nd IF Transformer	1	X
T301,(T302)	SLMA1Z2-K	19kHz, 38kHz Pick-up Transformer	1	Ⓝ X
T901	SLTA5Q13S	Power Transformer	1	Ⓝ X
CERAMIC FILTERS				
CF1,101,102	RVFCF10M12CG	FM IF Circuit, Green (10.6MHz)	each 3	X
	RVFCF10M12CB	FM IF Circuit, Black (10.65MHz)		
	RVFCF10M12CR	FM IF Circuit, Red (10.7MHz)		
	RVFCF10M12CW	FM IF Circuit, White (10.75MHz)		
	RVFCF10M12CY	FM IF Circuit, Yellow (10.8MHz)		
RESISTORS				
R701,702	ERD14TJ390	39Ω, 1/4W, ±5%, Carbon	2	Y
R703,704	ERD14TJ820	82Ω, 1/4W, ±5%, Carbon	2	Y
R4,103,137	ERD14TJ101	100Ω, 1/4W, ±5%, Carbon	3	Y
R129	ERD14TJ181	180Ω, 1/4W, ±5%, Carbon	1	Y
R707,708	ERD14TJ271	270Ω, 1/4W, ±5%, Carbon	2	Y
R111,765,766	ERD14TJ391	390Ω, 1/4W, ±5%, Carbon	3	Y
R116,311,312	ERD14TJ471	470Ω, 1/4W, ±5%, Carbon	3	Y
R302,709,710	ERD14TJ681	680Ω, 1/4W, ±5%, Carbon	3	Y
R753,754	ERD14TJ821	820Ω, 1/4W, ±5%, Carbon	2	Y
R12,102,117, 316	ERD14TJ102	1kΩ, 1/4W, ±5%, Carbon	4	Y
R751,752	ERD14TJ122	1.2kΩ, 1/4W, ±5%, Carbon	2	Y
R107,201	ERD14TJ152	1.5kΩ, 1/4W, ±5%, Carbon	2	Y
R112	ERD14TJ222	2.2kΩ, 1/4W, ±5%, Carbon	1	Y
R209	ERD14TJ272	2.7kΩ, 1/4W, ±5%, Carbon	1	Y
R203,763,764	ERD14TJ332	3.3kΩ, 1/4W, ±5%, Carbon	3	Y
R106	ERD14TJ392	3.9kΩ, 1/4W, ±5%, Carbon	1	Y
R110,115,215, 309,310	ERD14TJ472	4.7kΩ, 1/4W, ±5%, Carbon	5	Y
R101,125,202	ERD14TJ562	5.6kΩ, 1/4W, ±5%, Carbon	3	Y
R759,760,761, 762	ERD14TJ682	6.8kΩ, 1/4W, ±5%, Carbon	4	Y
R605,606	ERD14TJ822	8.2kΩ, 1/4W, ±5%, Carbon	2	Y
R307,308,813	ERD14TJ103	10kΩ, 1/4W, ±5%, Carbon	3	Y
R550,705,706, 713,714	ERD14TJ123	12kΩ, 1/4W, ±5%, Carbon	5	Y
R113	ERD14TJ153	15kΩ, 1/4W, ±5%, Carbon	1	Y
R108	ERD14TJ183	18kΩ, 1/4W, ±5%, Carbon	1	Y
R105	ERD14TJ273	27kΩ, 1/4W, ±5%, Carbon	1	Y
R121	ERD14TJ333	33kΩ, 1/4W, ±5%, Carbon	1	Y
R118	ERD14TJ393	39kΩ, 1/4W, ±5%, Carbon	1	Y
R757,758	ERD14TSJ473	47kΩ, 1/4W, ±5%, Carbon	2	Y
R313,314	ERD14TJ683	68kΩ, 1/4W, ±5%, Carbon	2	Y
R305,306	ERD14TJ823	82kΩ, 1/4W, ±5%, Carbon	2	Y
R3	ERD14TJ104	100kΩ, 1/4W, ±5%, Carbon	1	Y
R755,756	ERD14TSJ104	100kΩ, 1/4W, ±5%, Carbon	2	Y
R213	ERD14TJ124	120kΩ, 1/4W, ±5%, Carbon	1	Y
R1,2	ERD14TJ154	150kΩ, 1/4W, ±5%, Carbon	2	Y
R122	ERD14VJ820	82Ω, 1/4W, ±5%, Carbon	1	Y
R205	ERD14VJ101	100Ω, 1/4W, ±5%, Carbon	1	Y
R817,818,819, 820	ERD14VJ121	120Ω, 1/4W, ±5%, Carbon	4	Y
R549,833,834, 835,836	ERD14VJ151	150Ω, 1/4W, ±5%, Carbon	5	Y
R138	ERD14VJ221	220Ω, 1/4W, ±5%, Carbon	1	Y
R7,120,413, 414	ERD14VJ391	390Ω, 1/4W, ±5%, Carbon	4	Y
R8,109,128, 208,214	ERD14VJ471	470Ω, 1/4W, ±5%, Carbon	5	Y
R11,123,124, 405,406,507, 508,523,524, 805,806,807, 808,809,810, 811,812,841, 842,843,844	ERD14VJ102	1kΩ, 1/4W, ±5%, Carbon	21	Y
R218,315	ERD14VJ122	1.2kΩ, 1/4W, ±5%, Carbon	2	Y
R837,838,839, 840	ERD14VJ152	1.5kΩ, 1/4W, ±5%, Carbon	4	Y

Ref. No	Part No.	Description	Per Set (Pcs.)	Remarks
R131,417,418, 829,830,831, 832	ERD14VJ272	2.7kΩ, 1/4W, ± 5%, Carbon	7	Y
R119,303,304	ERD14VJ332	3.3kΩ, 1/4W, ± 5%, Carbon	3	Y
R114,135	ERD14VJ392	3.9kΩ, 1/4W, ± 5%, Carbon	2	Y
R126,130,206, 301,601,602, 603,604,904	ERD14VJ472	4.7kΩ, 1/4W, ± 5%, Carbon	9	Y
R207	ERD14VJ562	5.6kΩ, 1/4W, ± 5%, Carbon	1	Y
R217,423,424, 509,510,902	ERD14VJ822	8.2kΩ, 1/4W, ± 5%, Carbon	6	Y
R104,134,204, 211,212,317, 511,512,525, 527,528,529, 537,538,539, 814,815,816, 877,878,	ERD14VJ103	10kΩ, 1/4W, ± 5%, Carbon	20	Y
R526,711, 712	ERD14VJ123	12kΩ, 1/4W, ± 5%, Carbon	3	Y
R10,127,530	ERD14VJ153	15kΩ, 1/4W, ± 5%, Carbon	3	Y
R6,540,541, 547,548	ERD14VJ183	18kΩ, 1/4W, ± 5%, Carbon	5	Y
R9,407,408	ERD14VJ223	22kΩ, 1/4W, ± 5%, Carbon	3	Y
R419,420,428	ERD14VJ273	27kΩ, 1/4W, ± 5%, Carbon	3	Y
R411,412	ERD14VSJ273	27kΩ, 1/4W, ± 5%, Carbon	2	Y
R545,546	ERD14VJ333	33kΩ, 1/4W, ± 5%, Carbon	2	Y
R132,133	ERD14VJ473	47kΩ, 1/4W, ± 5%, Carbon	2	Y
R821,822,823, 824,879,880, 881,882	ERD14VJ563	56kΩ, 1/4W, ± 5%, Carbon	8	Y
R409,410	ERD14VSJ563	56kΩ, 1/4W, ± 5%, Carbon	2	Y
R403,404	ERD14VSJ683	68kΩ, 1/4W, ± 5%, Carbon	2	Y
R5,503,504, 521,522	ERD14VJ823	82kΩ, 1/4W, ± 5%, Carbon	5	Y
R216,425,426, 427	ERD14VJ104	100kΩ, 1/4W, ± 5%, Carbon	4	Y
R505,506,513, 514,515,516, 519,520,531, 532,551	ERD14VJ154	150kΩ, 1/4W, ± 5%, Carbon	11	Y
R415,416	ERD14VSJ154	150kΩ, 1/4W, ± 5%, Carbon	2	Y
R210	ERD14VJ224	220kΩ, 1/4W, ± 5%, Carbon	1	Y
R401,402,501, 502,517,518,	ERD14VJ 274	270kΩ, 1/4W, ± 5%, Carbon	6	Y
R136,421,422, 535,	ERD14VJ474	470kΩ 1/4W, ± 5%, Carbon	4	Y
R536	ERD14VJ564	560kΩ, 1/4W, ± 5%, Carbon	1	Y
R801,802,803 804	ERD14VJ824	820kΩ, 1/4W, ± 5%, Carbon	4	Y
R913	ERD14FJ3R3	3.3Ω, 1/4W, ± 5%, Carbon	1	Y
R318,845,846, 847,848,849, 850,851,852, 906	ERD14FJ4R7	4.7Ω, 1/4W, ± 5%, Carbon	10	Y
R912	ERD14FJ6R8	6.8Ω, 1/4W, ± 5%, Carbon	1	Y
R853,854,855, 856,857,858, 859,860,895, 896	ERD14FJ680	68Ω, 1/4W, ± 5%, Carbon	10	Y
R873,874	ERD14FJ101	100Ω, 1/4W, ± 5%, Carbon	2	Y
R903	ERD14FJ121	120Ω 1/4W, ± 5%, Carbon	1	Y
R908	ERD14FJ221	220Ω, 1/4W, ± 5%, Carbon	1	Y
R907	ERD14FJ471	470Ω, 1/4W, ± 5%, Carbon	1	Y
R825,826,827, 828	ERD14FJ561	560Ω, 1/4W, ± 5%, Carbon	4	Y
R875,876	ERD14FJ681	680Ω, 1/4W, ± 5%, Carbon	2	Y
R901	ERD18FJ4R7	4.7Ω, 1/8W, ± 5%, Carbon	1	Y
R869,870,871, 872	ERX1ANJ100	10Ω, 1W, ± 5%, Metallic	4	Y
R607,608,609, 610	ERD12TJ331	330Ω, 1/2W, ± 5%, Carbon	4	Y
R861,862,863, 864,865,866, 867,868	ERX2ANKR33	0.33Ω, 2W, ±10%, Metallic	8	Y
R905	ERM4P271	270Ω, 4W, ± 5%, Wire	1	Z
R910	ERC12GK335Z	3.3MΩ, 1/2W, ±10%, Solid	1	Y
VARIABLE RESISTORS				
VR101	EVLS3AA00B24	20kΩ(B), FM Meter Adjustment	1	X
VR102	EVLS3AA00B54	50kΩ(B), FM Muting Level Adjustment	1	X
VR301,801, 802,803, 804	EVLS3AA00B13	1kΩ(B), Separation ⊿DC Unbalance Adj	5	X
VR805,806, 807,808	EVLS3AA00B52	500Ω(B), ICQ Adjustment	4	X
VR601,602, 603,604	EVHB8A034BF5	250kΩ(B), Channel Level Control	4	X
VR701-1~ 701-4	EVB83A030BF5	250kΩ(B), Main Volume Control	1	Y
VR702-1, 702-2, 703-1, 703-2	EVFN9A039C14	10kΩ(C), Bass & Treble Control	2	Y
THERMISTORS				
TH801,802, 803,804	RRT251	Driver Amplifier Circuit	4	Y
CAPACITORS				
C131	ECCD1H0R5CC	0.5pF, 50WV, ±0.25pF, Ceramic	1	Ⓝ Z
C9	ECCD1H010CC	1pF, 50WV, ±0.25pF, Ceramic	1	Z
C210	ECCD1H050CC	5pF, 50WV, ±0.25pF, Ceramic	1	Z
C111	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	1	Z
C19	ECCD1H100KT	10pF, 50WV, ±10%, Ceramic	1	Z
C1	ECCD1H120KC	12pF, 50WV, ±10%, Ceramic	1	Z
C6,12,14	ECCD1H150KC	15pF, 50WV, ±10%, Ceramic	3	Z
C5	ECCD1H180KC	18pF, 50WV, ±10%, Ceramic	1	Z
C11	ECCD1H100KU	10pF, 50WV, ±10%, Ceramic	1	Z
C130	ECCD1H330KC	33pF, 50WV, ±10%, Ceramic	1	Z
C805,806,807 808	ECCD1H560K	56pF, 50WV, ±10%, Ceramic	4	Z
C13	ECCD1H390KC	39pF, 50WV, ±10%, Ceramic	1	Z
C119	ECCD1H470KU	47pF, 50WV, ±10%, Ceramic	1	Z
C827,828,829, 830	ECCD1H680K	68pF, 50WV, ±10%, Ceramic	4	Z
C121,122,132	ECCD1H101K	100pF, 50WV, ±10%, Ceramic	3	Z
C7,403,404	ECCD1H181K	180pF, 50WV, ±10%, Ceramic	3	Z
C208 503, 504	ECCD1H221K	220pF, 50WV, ±10%, Ceramic	3	Z
C51,134,420	ECCD1H331K	330pF, 50WV, ±10%, Ceramic	3	Z
C405,406,817, 818,819,820	ECKD1H471KB	470pF, 50WV, ±10%, Ceramic	6	Z
C2,3,4,8,15	ECKD1H102PF	0.001μF, 50WV, ±10%, Ceramic	5	Z
C10,17,18,102, 106,108,112, 115	ECKE1H103PF	0.01μF, 50WV, ±10%, Ceramic	8	Z
C104,107,110, 114,120,126, 129,133,136, 201,204,209 909,912	ECKE1H223PF	0.022μF, 50WV, ±10%, Ceramic	14	Z
C915,916	ECKD1H473ZF	0.047μF, 50WV, +80% −20%, Ceramic	2	Z
C907	ECKD2H103PF	0.01μF, 500WV, ±10%, Ceramic	1	Z
C302	ECQG05152KZN	0.0015μF, 50WV, ±10%, Polyester	1	Z
C411,412	ECQG05272JZN	0.0027μF, 50WV, ± 5%, Polyester	2	Z
C215	ECQG05332KZN	0.0033μF, 50WV, ±10%, Polyester	1	Z
C413,414	ECQG05822JZN	0.0082μF, 50WV, ± 5%, Polyester	2	Z
C203,211,212	ECQG05103KZN	0.01μF, 50WV, ±10%, Polyester	3	Z
C101,103,105, 109,113,117, 118,124,127, 202	ECQG05223KZN	0.022μF, 50WV, ±10%, Polyester	10	Z
C205,512	ECQG05333KZN	0.033μF, 50WV, ±10%, Polyester	2	Z
C53,54,207 516	ECQG05473KZN	0.047μF, 50WV, ±10%, Polyester	4	Z
C55,56	ECQG05224KZN	0.22μF, 50WV, ±10%, Polyester	2	Z
C703,704	ECQM05273KZ	0.027μF, 50WV, ±10%, Polyester	2	Z
C715,716	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	2	Z
C821,822,823, 824	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	4	Z
C705,706	ECQM05274KZ	0.27μF, 50WV, ±10%, Polyester	2	Z
C52,701,702	ECQM05334KZ	0.33μF, 50WV, ±10%, Polyester	3	Z
C920,921	ECQU2A103MD	0.01μF, 250VAC, ±20%, Polyester	2	Z
C415,416	ECEA6V33	33μF, 6.3WV, Electrolytic	2	Y
C407,408,809, 810,811,812	ECEA6V47	47μF, 6.3WV, Electrolytic	6	Y
C138	ECEA6V100	100μF, 6.3WV, Electrolytic	1	Y
C409,410	ECEA6V220	220μF, 6.3WV, Electrolytic	2	Y
C125	ECEA10V100	100μF, 10WV, Electrolytic	1	Y
C918	ECEA10V470	470μF, 10WV, Electrolytic	1	Y
C917	ECEA10V1000	1000μF, 10WV, Electrolytic	1	Y
C137,139,206,301	ECEA16V10	10μF, 16WV, Electrolytic	4	Y
C914	ECEA16V47	47μF, 16WV, Electrolytic	1	Y
C135,216,303	ECEA25V3R3	3.3μF, 25WV, Electrolytic	3	Y
C123	ECEA25V4R7	4.7μF, 25WV, Electrolytic	1	Y
C707,708,709, 710	ECEA25V4R7LM	4.7μF, 25WV, Electrolytic	4	Ⓝ Y
C751,752	ECEA25V10	10μF, 25WV, Electrolytic	2	Y
C310	ECEA25V33	33μF, 25WV, Electrolytic	1	Y
C813,814,815, 816,825,826	ECEA25V100	100μF, 25WV, Electrolytic	6	Y
C905,906	ECEA25V330	330μF, 25WV, Electrolytic	2	Y
C304,305,306, 307	ECEA50V1	1μF, 50WV, Electrolytic	4	Y

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
C753,754	ECEA50V10	10μF, 50WV, Electrolytic	2	Y
C519,910,911, 913	ECEA50V100	100μF, 50WV, Electrolytic	4	Y
C908	ECEA50V470	470μF, 50WV, Electrolytic	1	Y
C903,904	ECET25R4700Y	4700μF, 25WV, Electrolytic	2	Y
C116	ECAG25ER1X	0.1μF, 25WV, Electrolytic	1	Y
C213, 214 501, 502,505,506, 509,510, 511, 517 801,802, 803,804	ECAG25ER47X	0.47μF, 25WV, Electrolytic	14	Y
C514	ECSZ25EF1	1μF, 25WV, Electrolytic	1	Y
C417	ECSZ25EF2R2	2.2μF, 25WV, Electrolytic	1	Y
C401,402,507, 508,518	ECSZ25EF3R3	3.3μF, 25WV, Electrolytic	5	Y
C418,419	ECSZ25EF4R7	4.7μF, 25WV, Electrolytic	2	Y
VARIABLE CAPACITORS				
CV1,2,3,4,5 (CT4,5)	ECV5MX25X14G	Tuning Gang, FM & AM (Trimmer, AM ANT & AM OSC)	1	Ⓝ X
CT1,2	ECV1ZW10P32	Trimmer, FM ANT & FM DET, 10pF Type	2	X
CT3	ECV1ZW06P35	Trimmer, FM OSC, 6pF Type	1	X
COMPONENT COMBINATIONS				
M101	EXA5DL04C	FM Discriminator Circuit	1	Y
M301,302	SXAM675F	Low Pass Filter, 19kHz & 38kHz	2	Y
M303,304	SXAA1HCE002	Conpensation, FM Character	2	Ⓝ Y
M901,902,903	RXA103P22HD	Hum Cancel, 0.01μF (X2) 500WV	3	Y
SWITCHES				
S401-1～401-6	SSRA42	Selector Switch	1	Ⓝ X
S402-1～402-8	SSRA41	Mode Switch	1	Ⓝ X
S403-1～403-4, S404-1～404-4	SSLA15S	Tape Monitor 1 & 2 Switch	2	Ⓝ X
S101, S701-1～701-4	SSLA16S	Muting & Loudness Switch	2	Ⓝ X
S801-1,801-2	----------	Balanced Transformer Less Switch, Refer to Ref. No. CA11	1	X
S901	ESB709	Power Source Switch	1	Ⓝ X
S902-1～902-4	SSRA7S	Voltage Selector Switch	1	X
FUSES				
F1,2,3,4	XBAS1A2501	2.5A, Circuit Protection	4	X
F5	XBAS1B2002	2A, Power Source	1	X
F6	XBAS1B3003	3A, Power Source	1	X
F7	XBAS1B1501	1.5A, Power Source	1	X
LIGHTS				
PL1,9,10,11	XAM37K250	Stereo Eye, Channel Indicator (7.5V 75mA)	4	X
PL2,3,4,5,6,7	XAM35K	Dial & Meter Lamp (6.3V 0.25A)	6	X
PL8	XAMR33S400	Pointer Lamp (6.3V 75mA)	1	Ⓝ X
CABINETS				
CA1	XSB4+16BVCS	Screw, Cabinet M'tg.	4	Z
	→SKAA610	Cabinet, Complete	1	Ⓝ Y
CA2	SKMA170	Wooden Cabinet } Order SKAA610	(1)	
CA3	SKPA3	Hole, Ventilation } Order SKAA610	(1)	
	→SYPA141AS	Rear Panel, Complete	1	Ⓝ Z
CA4	SNEA404	Nut, Ground Terminal [Outer]	1	Z
	SNEA204-2S	Volt, Ground Terminal	1	Z
CA5	SJFA3012	Terminal, Tape Monitor 1, 2, PHONO AUX & 4CH MPX OUT	1	Ⓝ Z
				Z
CA6	SGPA300B	Rear Panel Only	1	Ⓝ Z
CA7	SJFA5201	Holder, Circuit Protection Fuses	2	Z
CA8	SGTA1480	Name Plate	1	Ⓝ Z
CA9	SJFA4401	Terminal, Ext. Antenna	1	Z
CA10	RJS7A	Socket, 4ch. Controler	1	Z
CA11	SSSA3S	Switch, Balanced Transformer Less(S801)	1	Z
CA12	SJFA4806	Terminal, Speakers	1	Ⓝ Z
CA13	SJSA1	Socket, AC Outlet	2	Z
CA14	SMKA3S	Mounting, AC Outlet	1	Z
CA15	SJAA3	Cord, AC Power Source	1	Z
CA16	RHR111	Bushing, AC Cord	1	Z
CA17	SJFA5202	Cap, Circuit Protection Fuse Holder	2	Z
	XSN26+12	Screw, Circuit Protection Fuse Holder Cap M'tg.	2	Z
CA18	SUPA1900	Printed Circuit Board Only	1	Ⓝ Z
CA19	XTV3D8CR	Red Screw, Bottom Board M'tg.	8	Z
	→SYUA61A	Bottom Board, Complete	1	Ⓝ Z
CA20	SKLA2-1	Leg	4	Z
CA21	SKUA321	Bottom Board Only	1	Ⓝ Z
CA22	XTV3D8CK	Black Screw, Complete Panel M'tg.	6	Z

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
	→SYWA91A	Front Panel, Complete	1	Ⓝ Y
CA23	SGXA52	Side Panel, Right	1	Ⓝ Z
CA24	SGXA53	Side Panel, Left	1	Ⓝ Z
CA25	SGWA1090	Panel, Printed Indicator	1	Ⓝ Z
CA26	SGUA12	Panel, Dial	1	Ⓝ Z
CA27	XTV3D8C	Screw, Panel M'tg.	11	Z
CA28	SGBA46	Badge, National Technics	1	Ⓝ Z
CA29	SULA37	Mounting, Panel (Right)	1	Ⓝ Z
	SULA36	Mounting, Panel (Left)	1	Ⓝ Z
CA30	SBNA100	Knob, Tuning Control	1	Ⓝ X
CA31	SBNA103	Knob, Bass, Treble, Selector & Mode Switch	4	Ⓝ X
CA32	SBLA2	Knob, Tape Monitor 1, 2, Loudness & Muting Switch	4	Ⓝ X
CA33	SBNA101	Knob, Channel Level Control	4	Ⓝ X
CA34	SBNA102	Knob, Main Volume Control	1	Ⓝ X
CA35	SBCA47	Button, Power Source Switch	1	Ⓝ X
CHASSIS				
CH1	SJSA63	Socket, Circuit Connector, 4 Pin	5	Ⓝ Z
CH2	SJSA64	Socket, Circuit Connector, 6 Pin	3	Ⓝ Z
	SJTA701	Cramp, Lead Wire (Refer to Page 8.)	35	Ⓝ Z
CH3	SMYA36	Heat Sink, Power Transistor	1	Ⓝ Z
CH4	SJSA65	Socket, Circuit Connection Pin Terminal	12	Ⓝ Z
	SJTA307	Pin Terminal, Circuit Connection	120	Ⓝ Z
CH5	XTV3D8CK	Black Screw, FM & AM Tuner M'tg.	13	Z
	→SDTA3S	Shaft, Tuning Control, Complete	1	Ⓝ Z
CH6	SDXA705S	Flywheel } Order SDTA3S	(1)	
CH7	SDTA6003	Shaft Only } Order SDTA3S	(1)	
CH8	SJJA12	Jack, Microphone	1	Ⓝ Z
CH9	SUPA1930	Printed Circuit Board Only	1	Ⓝ Z
CH10	SUPA1920	Printed Circuit Board Only	1	Ⓝ Z
CH11	SJSA201	Holder, Dial Light	1	Z
CH12	RHG5-1	Rubber Cushion, Variable Capacitor	1	Z
CH13	SDDA391S	Drum, Dial Cord	1	Ⓝ Z
	XXAR3H6S	Screw, Drum M'tg.	2	Z
	RDZ05-5	Cord, Dial 55" (140cm)	1 roll	Z
	SDSA4141	Spring, Dial Cord	1	Ⓝ Z
CH14	SDAA8	Slider, Dial Pointer	1	Z
CH15	SDPA3	Pointer, Dial	1	Ⓝ Y
CH16	RDR23	Pulley, Dial Cord	2	Z
CH17	RDR20	Pulley, Dial Cord	4	Z
CH18	SUMA5	Mounting, Dial Scale	1	Ⓝ Z
CH19	RJV1A	Holder, Meter Light	1	Z
CH20	SHGA634	Rubber Cushion, Dial Scale	1	Ⓝ Z
CH21	SHGA202	Bracket, Stereo Eye	1	Ⓝ Z
CH22	SSMA19-1	Meter, Signal	1	Ⓝ Z
CH23	SJJA9-1	Jack, Headphones	2	Z
CH24	SKDA330	Scale, Dial	1	Ⓝ Z
CH25	SGEA3	Cap, Channel Indicator Cover	1	Ⓝ Z
CH26	SGKA131	Indicator, Channel	1	Ⓝ Z
CH27	SDUA4	Panel, Channel Indicator	1	Ⓝ Z
CH28	SHRA605	Cover, Channel Indicator Light	1	Ⓝ Z
CH29	SDUA3	Bracket, Channel Indicator Light, Red	1	Ⓝ Z
CH30	SDUA5	Bracket, Channel Indicator Light, Green	2	Ⓝ Z
CH31	SHRA604	Holder, Channel Indicator Light	1	Ⓝ Z
ACCESSORIES				
A1	SSAA1	Cord, FM Antenna	1	Y
A2	XBAS1A2501	Fuse, Circuit Protection [2.5A]	4	X
A3	RJP5	Pin Plug	8	Y
A4	RJP16AS	Plug, AC Power Source	1	Y
A5	RJP17AS	Plug, AC Power Source	1	Y
PACKING PARTS				
P1	SPPA19	Soft Cover	1	Z
	SPEA4	Cover, AC Plug	1	Z
P2	SPHA6008	Polyethylene Sheet	1	Z
P3	SPSA58	Pad, Upper & Lower	2	Ⓝ Z
P4	SPSA57	Pad, Right & Left Side	2	Ⓝ Z
P5	SPSA56	Pad, Inside	1	Ⓝ Z
P6	SPNA140A	Carton Box (Inner)	1	Ⓝ Z
P7	→SQFA153	Printed Matter, Complete	1	Ⓝ Y
	- -SQXA509	Instructions Book (Order SQFA153)	(1)	
P8	SPGA212A	Carton Box (Outer)	1	Ⓝ Z

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